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Research Article

A STUDY ON ANXIETY AND DEPRESSION AMONG PATIENTS WITH POLYCYSTIC OVARY SYNDROME

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ABSTRACT

Background: Patients with polycystic ovarian syndrome (PCOS) often suffer from psychiatric co-morbidities, such as anxiety and depression. The prevalence of PCOS is increasing in India.

Objective: To study anxiety and depression among PCOS patients.

Materials and Methods: It was a cross-sectional observational study, which was conducted in Obstetrics and Gynaecology department of a tertiary care hospital. Patients diagnosed with PCOS were assessed on hospital anxiety depression scale and sociodemographic and clinical information was gathered using semi-structured questionnaire.

Result: The prevalence of anxiety of 36% and depression 16% were observed.

Discussion: PCOS patients were found to have high prevalence of anxiety and depression due to the symptoms of PCOS.

Keywords: Anxiety, PCOS, psychological problems, Depression

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INTRODUCTION

Polycystic ovary syndrome (PCOS) is the most common endocrine disorder among women of reproductive age, affecting approximately 5% to 10% of women in the Western world^{1,2}. Women with PCOS exhibit a wide range of symptoms presenting in varying combinations. These include amenorrhea, oligomenorrhea, menorrhagia, hirsutism, subfertility or infertility, anovulation, weight gain or obesity, acne vulgaris, androgenic alopecia, excess androgen production, and insulin resistance^{3,4}. Recently, in a systematic review and meta-analysis, found that women with PCOS had a fourfold greater odds of depressive symptoms compared with age-matched control women⁵. Further sub analysis of body mass index (BMI)-matched subjects also demonstrated

greater odds of depressive symptoms in women with PCOS and risk of depression in PCOS and found a persistent high prevalence of depression after 12–18 months⁶. Mood disorders are commonly associated with anxiety disorders, especially generalized anxiety disorder (GAD)⁷. The estimated prevalence of anxiety disorders is 5%–8% in women seen in the primary care setting. Abnormal or inappropriate anxiety can become a problem when it occurs without any recognizable stimulus or when the stimulus does not warrant such a reaction. Often, anxiety gets generalized to other situations, and can then become overwhelming or associated with life in general. In the National Comorbidity Survey, patients with GAD had a high prevalence of social phobia, specific phobia, panic disorder, and major depression^{8,9}. The majority of people with GAD reported substantial interference with

their life, a high degree of professional help seeking, and a high use of medication to relieve their symptoms. There is paucity of Indian research assessing prevalence of anxiety and depression in PCOS.

MATERIALS AND METHODS

This cross-sectional study was conducted for a period of 6 month from January to June 2018 among 100 patients of PCOS from the Department of Gynaecology, Vinayaka Missions Kirupanada Variyer Medical College, Salem, India. Patients who had confirmed diagnosis of PCOS were explained details of the study and were invited to participate. The data from case records of the patients who diagnosed with PCOD during the study period were included for the study based on inclusion and exclusion criteria. The data from the case records of patients above the age of 12 till 35 years were included for the study. All women provided informed consent to participate in the study. Only the women aged 12- 35 years were included for analysis to reduce any potential confounding effects of menopause (average age of onset is 51 years) which is associated with mental health outcomes. Pregnant women, women living overseas, women with a psychiatric illness (other than anxiety or depression) or an incomplete PCOS diagnosis were excluded from the research.

Measures:

Hospital anxiety and depression scale (HADS) was used to assess anxiety and depression.¹⁰ HADS is a reliable instrument to screen for clinically significant anxiety and depression in patients attending a general medical clinic. It is also a valid measure of the severity of these mood disorders. This questionnaire contains 14 questions, including 7 each for rating anxiety and

depression. The scale has been found to be equivalent to Hamilton anxiety or depressive scales in reliability and validity. A score of 0–7 on either subscale is regarded as normal, 8–10 as suggestive of presence of mild alterations, and that of 11 or higher indicates probable presence of the particular mood disorder or anxiety disorder.

RESULT

Out of 100 Patients, 42% of the patients were on 22-26 age group followed by 36% were on the 17-21 age group (Table no.1). On analysis of Body Mass Index, 60% of the patient having BMI of 18.5 – 25 followed by 24% having BMI of 25-30. Distribution of BMI according to the age founds that patients in 17-21 age group were having high BMI Score (obese) followed by patients in 22-26 were having moderately BMI (Over weight). The Hospital Anxiety and Depression Scale HADS was used to measure of anxiety and depression among sample PCOD patient (Table No.2) and it indicates that 52% having score in between 11-21 (abnormal) in which 36% having anxiety and 16% having Depression. 48% of patient having score in between 8-11 (Borderline) in which 26% having borderline anxiety and 22% having borderline Depression.

Table 1: Age wise distribution of patients

Sl No	Age Groups	No of patients	Percentage
1	12 to 16	4	4 %
2	17 to 21	36	36%
3	22 to 26	42	42%
4	27 to 31	16	16%
5	32 to 36	2	2%

Table 2: Distribution based on haad score

Sl.No	Scoring	0-7 (Normal)	8-11(Borderline)	11-21 (Abnormal)
1	Anxiety	38(38%)	26(26%)	36(36%)
2	Depression	62(62%)	22(22%)	16(16%)

DISCUSSION

Goal of this study was to assess anxiety and depression among PCOS patients. Our study observed high prevalence of anxiety disorder in PCOS. Similar findings have been observed by earlier researchers.^{11,12} High anxiety level in PCOS may be due to infertility, loss of sexuality, acne, hirsutism, and obesity.¹³⁻¹⁵ Depression in PCOS may be related to change in physical appearance as obesity, acne, and hirsutism lead to negative perception of self and social withdrawal, which culminates into depression. Earlier studies have also reported similar findings. Rassi et al.¹⁶ observed depression in 26% patients whereas Hollinrake et al.¹⁷ found 21% prevalence of depression

in PCOS. As this study concludes that there were high level of prevalence of anxiety and depression in PCOS patients.

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CONFLICTS OF INTERESTS

There are no conflicts of Interests.

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